Abstract

A motor driving apparatus makes a carrier signal of an inverter be synchronized with a carrier signal of a DC/DC converter, and determines a phase difference between both the

5   carrier signals based on a ratio of an input voltage inputted to the DC/DC converter and an input voltage inputted to the inverter, and a percentage of modulation and a power factor which are operation parameters of the inverter. When the frequency of the carrier signal of the DC/DC converter is set

10   to be twice as high as that of the carrier signal of the inverter, an optimal phase difference is determined based on the ratio of the input voltage of the DC/DC converter and the input voltage of the inverter.